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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,051	03/26/2007	Katja Berg-Schultz	22234 US (C038435/0199186)	5471
Stephen M. Haracz BRYAN CAVE 1290 Avenue of the Americas New York, NY 10104				
7590 03/18/2009				
EXAMINER				
MABRY, JOHN				
ART UNIT		PAPER NUMBER		
1625				
MAIL DATE		DELIVERY MODE		
03/18/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/589,051

**Applicant(s)**

BERG-SCHULTZ ET AL.

**Examiner**

JOHN MABRY

**Art Unit**

1625

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-13 and 15-17, 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

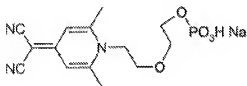
**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

***Response to Amendment(s)***

Applicant's response on December 8, 2008 filed in response to the Office Action dated August 4, 2008 has been received and duly noted.

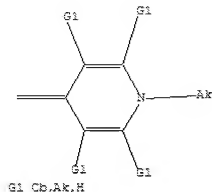
Applicant elected Example 1 as the elected species in the response to restriction requirement. The elected species falls within the scope of Group I:



Due to Applicant's elected species falling within the Scope of Group I, Examiner search was governed according to the variables of elected species. Examiner inadvertently did not communicate this in previous action.

In Examiner's further restriction requirement, compounds of Formula I, where R1 and R2 = cyano, is classified in class 546, subclasses 230 and 330. This is evidence of distinct and separate groups.

The following is a search which encompasses the scope of Group I. This search was so large that it did not run to completion (see underlined section below). This is evidence of a search burden.



Structure attributes must be viewed using SIN Express query preparation.

=> s 13 sss sam

SAMPLE SEARCH INITIATED 09:42:19 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 21961 TO ITERATE

9.1% PROCESSED 2000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 430349 TO 448091

PROJECTED ANSWERS: 1011 TO 2063

Examiner has met the requirements of a proper restriction requirement.

Additionally, this application is filed under 371 and unity of invention was properly broken (see restriction requirement, pages 4 and 5 – dated 3/25/08).

In view of this response, the status of the rejections/objections of record is as follows:

***Status of the Claims***

Claims 1-13 and 15-17 are pending and rejected.

Claims 14 and 22 have been cancelled.

Claims 18-21 are directed towards non-elected subject matter.

***Specification Objections***

Objection of claim 15 regarding the valency issues has been overcome in view of Applicants amendments to the Specification.

***35 USC § 112 Rejection(s)***

The 112-2<sup>nd</sup> rejection of claim 15 regarding the valency issues has been overcome in view of Applicants amendment to the claims.

The 112-1<sup>st</sup> rejection of claim 11 regarding the term "tristromethamine" has been overcome in view of Applicants amendment.

The 112-1<sup>st</sup> rejection of claims 1-13 and 15-17 regarding the scope of enablement for "R3 – R6" have been overcome in view of Applicants amending the claims. However, the 112-1<sup>st</sup> rejection over the variables X and Y have not been overcome and remain rejected.

Applicant is not enabled to be the description below.

X is

an alkyl, alkylaryl or alkyl cycloalkyl group containing 1 to 20 carbon atoms and optionally 1 to 10 hetero atoms, and comprising at least one group including at least one hetero atom which is positively or negatively charged, and

Y is a counterion.

The Applicant is enabled for C1-C5 alkyl groups which are interrupted by 1-2 heteroatoms wherein heteroatoms are N, O, S and P and X where X is K, Na, halogen, Li but is not enabled for the entire scope as claimed.

Applicant claims "alkyl, alkylaryl and alkylcycloalkyl groups optionally containing 1-10 heteroatoms". This is not the proper term to describe an alkyl group. For example, an ethyl alkyl group comprising of an oxygen is not an alkyl group - it would be an ether.

Applicant is not enabled for Y being every counter ion that chemically exists. Examiner described above which counterions Applicant is enabled. According to Hawley's Condensed Chemical Dictionary, 14th Edition, the term "ion" is defined as:

**ion.** An atom or radical that has lost or gained one or more electrons and has thus acquired an electric charge. Positively charged ions are cations and those having a negative charge are anions. An ion often has entirely different properties from the element (atom) from which it was formed. In sodium chloride solution, sodium exists as sodium ion ( $\text{Na}^+$ ), i.e., sodium atoms that have lost one electron. The chlorine is present as chloride ion ( $\text{Cl}^-$ ), i.e., chlorine atoms that have gained one electron. Copper sulfate solution contains copper ion ( $\text{Cu}^{2+}$ ), i.e., copper atoms that have lost two electrons, and sulfate ion ( $\text{SO}_4^{2-}$ ), i.e., sulfate radicals that have gained two electrons. Ions occur in water solution or in the fused state (except in the case of gases). Compounds that form ions are called electrolytes because they enable the solution to conduct electricity. Ion formation causes an abnormal increase in the boiling point of water and also lowers the freezing point, the extent depending on the concentration of the solution. Ions are also formed in gases as a result of electrical discharge.

Applicant is clearly not enabled for this term. Additionally, claimed term would include organic ions as well which there is an enormous amount of possibilities in which Applicant is not enabled.

Additionally, it is Examiner's interpretation that the terms "alkylaryl and alkylcycloalkyl" is bonded through the alkyl group. If Applicant has another intended interpretation, please explicitly and clearly explain definition.

### ***Claim Rejections - 35 USC § 102***

Claims 1-5, 9 and 12-13 rejections are withdrawn under 35 U.S.C. 102(b) as being anticipated by Matsubayashi et al; Tanaka et al; and Urayama et al in view of Applicant's amendments and remarks.

***Claim Rejections - 35 USC § 103***

Claims 1-10, 12-13 and 16-17 rejections are withdrawn under 35 U.S.C. 103(a) as being unpatentable over Berg-Schultz et al (WO '183) et al in view of Applicant's remarks.

***Obviousness-Type Double Patenting Rejection(s)***

The obviousness-type double patenting rejected has been overcome over US Berg-Schultz et al (US '278).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



**Conclusion**

Applicant is respectfully reminded that it is required that all claims be amended to elected group. Examiner also warns Applicant not to introduce new matter when amending.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Mabry, PhD whose telephone number is (571) 270-1967. The examiner can normally be reached on M-F from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's primary examiner can be reached at (571) 272-0684, first, or the Examiner's supervisor, Janet Andres, PhD, can be reached at (571) 272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/John Mabry/  
Examiner  
Art Unit 1625

/Rita J. Desai/  
Primary Examiner, Art Unit 1625

